

ABSTRACT

A method of analyzing a communication network that determines a mean drop rate in a device x by polling each device from a network management computer (NMC) which is in communication with the network, and processing signals in the NMC to determine a drop rate $D(x)$, in accordance with:

$$D(x) = (L_+(x) - L_-(x)) / 2,$$

$$\text{and } L_-(x) = 1 - A(x)$$

where

$A(x)$: the fraction of poll requests from the NMC to device x for which the NMC receives replies (measured over the last M sampling periods), (wherein x must not be broken),

$D(x)$: the mean frame drop rate in device x ,

$L_-(x)$: NMC's perception of the loss rate to device x and back,

$L_-(x)$: the NMC's perception of the mean value of $L(z)$ for all devices z connected to device x , closer to the NMC than device x and which are not broken, and

$L_+(x)$: the NMC's perception of the mean value of $L(z)$ for all devices z connected to device x , further away from the NMC than device x and which are not broken.